UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,764	04/02/2004	Ariel Peled	27655	9948

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EXAMINER
AHLUWALIA, NAVNEET K

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *02 February 2010*.
2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1–25,27–40,49 –59,61 and 62* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1–25,27–40,49–59, 61 and 62* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   This communication is in response to the Amendment filed 02/02/2010.

Response to Arguments

2.   Claims 1 – 25, 27 – 40, 49 – 59, 61 and 62 are pending in this Office Action. After

a further search and a thorough examination of the present application, claims 1 – 25,

27 – 40, 49 – 59, 61 and 62 remain rejected.

3.   Applicant's arguments with respect to claims 1 – 40, 49 – 59, 61 and 62 have

been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

6.   Claims 1 – 25, 27 – 40, 49 – 59, 61 and 62 rejected under 35 U.S.C. 103(a) as

being unpatentable over Zuk et al. ('Zuk' herein after) (US 2003/0154399 A1) further in

view of Redlich et al. ('Redlich' herein after) (US 2004/0068526 A1) further in view of

Whiting et al. (' Whiting' herein after) (US 2002/0107877 A1).

With respect to claim 1,

        Zuk discloses a method for detecting distribution of an information item included

within passing information sequences obtained from a digital medium, said information

item comprising any one of a specified set of prestored information items whose

distribution it is desired to control, comprising: transforming each item of said set of

prestored information items whose distribution it is desired to control from a first

representation format into a respective format facilitating fast comparison, in

accordance with a predetermined transformation format said predetermined

transformation format being preservative of meaning (paragraphs 0004 and 0009, Zuk);

transforming said passing information sequences obtained from said digital medium,

into said format facilitating fast comparison in accordance with said transformation

format (paragraph 0010, Zuk); determining the presence of one or more of said

prestored information items within said transformed information sequence said

determining comprising, comparing respective information sequences in said format

facilitating said relatively fast comparison with said prestored information items in said

first representation format facilitating fast comparison and when a match is found

between said formats facilitating fast comparison then carrying out second relatively

slower textual comparison between said representative prestored information item and

said extracted information sequence (paragraphs 0024 – 0025, Zuk).

Zuk does not disclose the application of control policy for distribution of data

explicitly as claimed.

Redlich however teaches the application of control policy for distribution of data

(paragraphs 58 – 59, 62, 83, 89 – 92 Redlich).

Zuk modified with Redlich does not discloses the fast comparison of formatted

files and slower comparison is match is found.

Whiting however teaches the fast comparison of formatted files and slower

comparison is match is found in paragraphs 80 – 81, Whiting.

It would have been obvious to one of ordinary skill in the art of data processing at

the time of the present invention to combine the teachings of cited references because

both inventions are in the same field of invention, namely information storage and

identification. The predefined format and categories of Redlich's method would enhance

the method of Zuk by transforming information into a predefined format which would be

good for storage and retrieval since the information stays the same and furthermore, the

control policy application before distribution would enhance the protection of information

(paragraphs 58 – 59, 62, 83, 89 – 92 Redlich). Furthermore, the combination with

Whiting improves the speed of execution and matches since unnecessary data is not

searched through very thoroughly, paragraphs 80 – 81, Whiting.

Claims 2 – 25, 27 – 40 are rejected under the same rationale as claim 1. For reference

citations please see below.

With respect to claim 2,

Zuk as modified discloses a method according to claim 1, further comprising

storing said representations in a database (Figure 2, Zuk).

With respect to claim 3,

Zuk as modified discloses a method according to claim 1, further comprising

sorting said representations into a sorted list (paragraph 0047 and Figure 2, Zuk).

With respect to claim 4,

Zuk as modified discloses a method according to claim 3, wherein said sorting is

in accordance with a tree sorting algorithm (paragraph 0047 and Figure 2, Zuk).

With respect to claim 5,

Zuk as modified discloses a method according to claim 1, wherein said

information item comprises a single word (paragraphs 0054 – 0055, Zuk).

With respect to claim 6,

Zuk as modified discloses a method according to claim 1, wherein said

information item comprises a sequence of words (paragraphs 0054 – 0055, Zuk).

With respect to claim 7,

Zuk as modified discloses a method according to claim 1, wherein said

information item comprises a delimited sequence of sub-items (paragraphs 0054 –

0055, Zuk).

With respect to claim 8,

Zuk as modified discloses a method according to claim 7, wherein each of said

sub-items comprises a sequence of alphanumeric characters (paragraphs 0054 – 0055,

Zuk).

With respect to claim 9,

Zuk as modified discloses a method according to claim 1, wherein a type of said

information item comprises one of a group of types comprising: a word, a phrase, a

number, a credit-card number, a social security number, a name, an address, an email

address, and an account number (paragraphs 0054 – 0055, Zuk).

With respect to claim 10,

Zuk as modified discloses a method according to claim 1, wherein said

information sequence is provided over a digital traffic channel (Figure 2, Zuk).

With respect to claim 11,

Zuk as modified discloses a method according to claim 10, wherein said digital

traffic channel comprises one of a group of channels comprising: email, instant

messaging, peer-to-peer network, fax, and a local area network (Figure 2, Zuk).

With respect to claim 12,

Zuk as modified discloses a method according to claim 1, wherein said

information sequence comprises the body of an email (paragraph 0035, Zuk).

With respect to claim 13,

Zuk as modified discloses a method according to claim 1, wherein said

information sequence comprises an email attachment (paragraphs 0035 and 0123,

Zuk).

With respect to claim 14,

Zuk as modified discloses a method according to claim 1, further comprising

retrieving said information sequence from a digital storage medium (Figure 4, Zuk).

With respect to claim 15,

Zuk as modified discloses a method according to claim 14, wherein said digital

storage medium comprises a digital cache memory (Figure 4, Zuk).

With respect to claim 16,

Zuk as modified discloses a method according to claim 1, wherein said

representation depends only on the textual and numeric content of the information item

(paragraphs 0054 – 0055, Zuk).

With respect to claim 17,

Zuk as modified discloses a method according to claim 1, wherein said

transforming into a format that facilitates fast comparison comprises Unicode encoding

(paragraphs 0054 – 0055, Zuk).

With respect to claim 18,

Zuk as modified discloses a method according to claim 1, wherein said

transforming into a format that facilitates fast comparison comprises converting all

characters to upper-case characters or to lower-case characters (paragraphs 0054 –

0055, Zuk).

With respect to claim 19,

Zuk as modified discloses a method according to claim 1, wherein said

transforming into a format that facilitates fast comparison comprises encoding an

information item into a numeric representation (paragraphs 0054 – 0055, Zuk).

With respect to claim 20,

Zuk as modified discloses a method according to claim 1, wherein said

transforming into a format that facilitates fast comparison comprises applying a first

hashing function to said representations (paragraph 0093, Zuk).

With respect to claim 21,

Zuk as modified discloses a method according to claim 1, wherein said

information sequence comprises sub-sequences (paragraphs 0054 – 0055, Zuk).

With respect to claim 22,

Zuk as modified discloses a method according to claim 21, wherein said sub-

sequences are separated by delimiters (paragraphs 0054 – 0055, Zuk).

With respect to claim 23,

Zuk as modified discloses a method according to claim 22 wherein said sub-

sequences separated by delimiters are any of: words; names, and numbers

(paragraphs 0054 – 0055, Zuk).

With respect to claim 24,

Zuk as modified discloses a method according to claim 23, further comprising

scanning said information sequence to identify said sub-sequences (paragraphs 0054 –

0055, Zuk).

With respect to claim 25,

Zuk as modified discloses a method according to claim 24, and said determining

is performed by matching said information item to an ordered series of said sub-

sequences (paragraphs 0054 – 0055, Zuk).

With respect to claim 27,

Zuk as modified discloses a method according to claim 26, wherein said policy is

a security policy, said security policy comprises at least one of the following group of

security policies: blocking said transmission, logging a record of said detection and

detection details, and reporting said detection and detection details (paragraph 0117,

Zuk).

With respect to claim 28,

Zuk as modified discloses a method according to claim 26, wherein said

information items are divided into sets, and wherein said security policy depends on the

number of detected information items that belong to the same set (paragraphs 0117 –

0119, Zuk).

With respect to claim 29,

Zuk as modified discloses a method according to claim 28 wherein each of said

sets comprises information items associated with a single individual (paragraphs 0054 –

0055, Zuk).

With respect to claim 30,

Zuk as modified discloses a method according to claim 1, wherein said

information item comprises a sequence of sub-items (paragraphs 0054 – 0055, Zuk).

With respect to claim 31,

Zuk as modified discloses a method according to claim 30, wherein said sub-

items are separated by delimiters (paragraphs 0054 – 0055, Zuk).

With respect to claim 32,

Zuk as modified discloses a method according to claim 30, wherein a sub-item

comprises one of a group comprising: a word, a number, and a character string

(paragraphs 0054 – 0055, Zuk).

With respect to claim 33,

Zuk as modified discloses a method according to claim 30, wherein said

determining comprises using a state machine operable to detect said sequence of

delimited sub-items within said information sequence (paragraphs 0054 – 0055, Zuk).

With respect to claim 34,

Zuk as modified discloses a method according to claim 30, wherein said

transforming into format that facilitates fast comparison comprises: applying a first

hashing function to assign a respective preliminary hash value to each sub-item within

said information item and applying a second hashing function to assigning a global hash

value to said information item based on said preliminary hash values of said sub-items

(paragraphs 0093 – 0095, Zuk).

With respect to claim 35,

Zuk as modified discloses a method according to claim 34, wherein said

information sequence comprises sub-sequences, and wherein said determining

comprises: applying said first hashing function to assign a respective preliminary hash

value to each of said sub-sequences, applying said second hashing function to at least

one of said preliminary hash values to assign a global hash value to said at least one of

said sub-sequences and comparing said global hash value to hash values of said sub-

sequences (paragraphs 0093 – 0095, Zuk).

With respect to claim 36,

Zuk as modified discloses a method according to claim 35, wherein said sub-

sequences comprise one of a group comprising: a word, a number, and a character

string (paragraphs 0054 – 0055, Zuk).

With respect to claim 37,

Zuk as modified discloses a method according to claim 35, wherein said sub-sequences comprise a plurality of ordered combinations of sub-sequences within said data sequence (paragraphs 0054 – 0055, Zuk).

With respect to claim 38,

Zuk as modified discloses a method according to claim 36, wherein said sub-sequences comprise a plurality of combinations of sub-sequences within said data sequence (paragraphs 0054 – 0055, Zuk).

With respect to claim 39,

Zuk as modified discloses a method according to claim 38, wherein said second hash function is invariant to reordering of at least two of said sub-sequences (paragraph 0092, Zuk).

With respect to claim 40,

Zuk as modified discloses a method according to claim 39 further comprising checking whether a delimited segment was previously stored, and continuing said detection process only if a current delimited segment was previously stored (Figure 6, Zuk).

With respect to claim 49,

Zuk discloses an apparatus for detecting an information item within an

information sequence, said information item being any one of a specified set of data

items, comprising: a preprocessor, for transforming said information item into a

canonical representation said transformation being preservative of meaning in

accordance with a canonical transformation format (paragraphs 0004 and 0009, Zuk);

and a scanner, for scanning said information sequence to identify sub-sequences

(paragraph 0010, Zuk); and a comparator associated with said preprocessor and said

scanner, for comparing said canonical representation to said sub-sequences to make

an initial determination of the presence of said specified information item within said

information sequence and for comparing original text of said sub sequences and said

specified information item wherever said initial determination indicates a match

(paragraphs 0024 – 0025, Zuk).

Zuk does not disclose the application of control policy for distribution of data

explicitly as claimed.

Redlich however teaches the application of control policy for distribution of data

(paragraphs 58 – 59, 62, 83, 89 – 92 Redlich).

Zuk modified with Redlich does not discloses the fast comparison of formatted

files and slower comparison is match is found.

Whiting however teaches the fast comparison of formatted files and slower

comparison is match is found in paragraphs 80 – 81, Whiting.

It would have been obvious to one of ordinary skill in the art of data processing at the time of the present invention to combine the teachings of cited references because both inventions are in the same field of invention, namely information storage and identification. The predefined format and categories of Redlich's method would enhance the method of Zuk by transforming information into a predefined format which would be good for storage and retrieval since the information stays the same and furthermore, the control policy application before distribution would enhance the protection of information (paragraphs 58 – 59, 62, 83, 89 – 92 Redlich). Furthermore, the combination with Whiting improves the speed of execution and matches since unnecessary data is not searched through very thoroughly, paragraphs 80 – 81, Whiting.

Claims 50 – 59, 61 are rejected under the same rationale as claim 49. For reference citations please see below.

With respect to claim 50,

Zuk as modified discloses an apparatus for detecting a specified information item within an information sequence according to claim 49, further comprising a user interface for inputting said information items (paragraph 0117, Zuk).

With respect to claim 51,

Zuk as modified discloses an apparatus for detecting a specified information item within an information sequence according to claim 49, wherein said scanner is further

operable to transform said information sequence in accordance with said canonical

transformation format (paragraphs 0024 – 0025, Zuk).

With respect to claim 52,

     Zuk as modified discloses an apparatus for detecting a specified information item

within an information sequence according to claim 49, wherein said scanner is further

operable to transform said sub-sequences in accordance with said canonical

transformation format (paragraphs 0024 – 0025, Zuk).

With respect to claim 53,

     Zuk as modified discloses an apparatus for detecting a specified information item

within an information sequence according to claim 49, further comprising a database for

storing a representation of each data item of said set (paragraphs 0054 – 0055, Zuk).

With respect to claim 54,

     Zuk as modified discloses an apparatus for detecting a specified information item

within an information sequence according to claim 49, wherein said information

sequence is obtained from a digital medium (Figure 4, Zuk).

With respect to claim 55,

     Zuk as modified discloses an apparatus for detecting a specified information item

within an information sequence according to claim 49, further comprising a sorter, for

forming a sorted list of the respective representations of set of data items (paragraph

0047 and Figure 2, Zuk).

With respect to claim 56,

     Zuk as modified discloses an apparatus for detecting a specified information item

within an information sequence according to claim 49, wherein a type of said

information item comprises one of a group of types comprising: a word, a phrase, a

number, a credit-card number, a social security number, a name, an address, an email

address, and an account number (paragraphs 0054 – 0055, Zuk).

With respect to claim 57,

     Zuk as modified discloses an apparatus for detecting a specified information item

within an information sequence according to claim 49, wherein said information

sequence is provided over a digital traffic channel (Figure 2, Zuk).

With respect to claim 58,

     Zuk as modified discloses an apparatus for detecting a specified information item

within an information sequence according to claim 49, further comprising retrieving said

information sequence from a digital storage medium (Figure 2, Zuk).

With respect to claim 59,

Zuk as modified discloses an apparatus for detecting a specified information item within an information sequence according to claim 58, wherein said digital storage medium comprises digital storage medium within a proxy server (paragraphs 0016 – 0017, Zuk).

With respect to claim 61,

Zuk as modified discloses an apparatus for detecting a specified information item within an information sequence according to claim 49, wherein said encoding function comprises a hashing function (paragraph 0092, Zuk).

With respect to claim 62,

Zuk discloses a method according to claim 2, wherein said transforming said representation and storage of said information items comprises: a) assigning a hash value to each delimited segment within said information item (paragraphs 0004 and 0009, Zuk); b) assigning a hash value for said information item based on said hashes assigned to delimited segments within said information item (paragraphs 0092 – 0095, Zuk); c) storing said hash values evaluated in step a) and step b) above (paragraphs 0092 – 0095, Zuk); and wherein detecting said information items within said digital medium comprises: d) assigning a hash value to each delimited segment within said digital medium utilizing the same hash function used in step a) above (paragraphs 0093 – 0095, Zuk); e) assigning a hash value for sequences of delimited segments utilizing the same hash function used in step b) above, said sequences being of pluralities of

possible numbers of delimited segments within said information items (paragraphs 0092

– 0094, Zuk); f) comparing the hashes values evaluated in step e) above with said hash

values stored in step e) above (paragraphs 0092 – 0095, Zuk).

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Navneet K. Ahluwalia whose telephone number is 571-272-5636.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam T. Hosain can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Navneet K. Ahluwalia/
Examiner, Art Unit 2166

Dated: 05/07/2010

/Khanh B. Pham/
Primary Examiner, Art Unit 2166